

**Appendix L**  
**Public Hearing Notice and Statement of**  
**Consideration**

**KENTUCKY DIVISION FOR AIR QUALITY  
NOTICE OF PUBLIC HEARING  
TO REVISE KENTUCKY'S STATE IMPLEMENTATION PLAN**

The Kentucky Environmental and Public Protection Cabinet will conduct a public hearing on July 24, 2007, at 1:30 p.m. (EDT) in the Conference Room of the Northern Kentucky Area Development District (NKADD), 22 Spiral Drive, Florence, Kentucky. This hearing is being held to receive comments on a proposed attainment demonstration for the Kentucky portion of the Cincinnati-Hamilton OH-KY-IN 8-hour Ozone Nonattainment Area and proposed 110(a)(2)(D)(i) demonstration.

This hearing is open to the public and all interested persons will be given the opportunity to present testimony. To assure that all comments are accurately recorded, the Division requests that oral comments presented at the hearing also be provided in written form, if possible. To be considered part of the hearing record, comments must be received by the close of the hearing. Comments should be sent to the contact person.

The full text of the proposed SIP revision is available for public inspection and copying during regular business hours (8:00 a.m. to 4:30 p.m.) at the locations listed below. Any individual requiring copies may submit a request to the Division for Air Quality in writing, by telephone, or by fax. Requests for copies should be directed to the contact person. In addition, an electronic version of the proposed SIP revision document and relevant attachments can be downloaded from the Division for Air Quality's web site at:

[http://www.air.ky.gov/homepage\\_repository/Public+Hearings.htm](http://www.air.ky.gov/homepage_repository/Public+Hearings.htm).

The hearing facility is accessible to people with disabilities. An interpreter or other auxiliary aid or service will be provided upon request. Please direct these requests to the contact person.

**CONTACT PERSON:** John Gowins, Evaluation Section Supervisor, Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601. Phone (502) 573-3382; Fax (502) 573-3787; E-mail John.Gowins@ky.gov.

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Florence Regional Office  
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Frankfort, KY 40601-1758

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**STATEMENT OF CONSIDERATION  
RELATING TO SIP REVISION FOR THE KENTUCKY PORTION OF THE  
CINCINNATI-HAMILTON OH-KY-IN  
ATTAINMENT DEMONSTRATION  
FOR 8-HOUR OZONE**

**Amended After Comments**

**Environmental and Public Protection Cabinet**

Department for Environmental Protection  
Division for Air Quality

- (1) A public hearing on the proposed State Implementation Plan (SIP) revision attainment demonstration for the Kentucky portion of the Cincinnati-Hamilton nonattainment area for the 8-hour ozone standard and 110(a)(2)(D)(i) demonstration was held on July 24, 2007, at 1:30 p.m. The hearing was held at the Northern Kentucky Area Development District, 22 Spiral Drive, Florence, Kentucky. Written and oral comments were received during the public comment period.
- (2) The following individuals attended and/or provided written comments:

**Name and Title**

Richard Brewer  
Johnna McHugh  
Andy Reser  
Gaurav Shil  
Thomas Vergamini

**Organization**

Duke Energy  
Environmental Quality Commission  
OKI Planning Organization  
Trinity Consultants  
NKY Chamber of Commerce

- (3) The following individuals from the Kentucky Environmental and Public Protection Cabinet attended the public hearing and drafted responses to comments received during the public review period.

Lona Brewer, Environmental Control Manager	Division for Air Quality
John Gowins, Environmental Control Supervisor*	Division for Air Quality
Shea Hogan, Environmental Technologist I	Division for Air Quality

\* Agency moderator

**Response to Comments for the proposed revision to the State Implementation Plan (SIP) to submit an attainment demonstration for the Kentucky portion of the Cincinnati-Hamilton OH-KY-IN nonattainment area for the National Ambient Air Quality Standard (NAAQS) for 8-hour ozone.**

1. **Comment:** Cite the basis for modeling certainty and for calculations used by the modeling.

*Jo Hargis, Executive Director, Environmental Quality Commission*

**Response:** The information requested above is contained in the attainment demonstration in Appendix G, entitled Model Performance Evaluation.

2. **Comment:** Cite criteria for choosing a particular model to demonstrate attainment.

*Jo Hargis, Executive Director, Environmental Quality Commission*

**Response:** The U.S. EPA developed the Community Multiscale Air Quality (CMAQ) system, an advanced air quality modeling system that addresses air quality from a “one atmosphere” multi-pollutant perspective. Based on its conceptual design, the high performance computational Models-3 framework serves to manage and orchestrate air quality simulations, using the CMAQ modeling system. The Models-3 framework is an advanced computational platform that provides a sophisticated and powerful modeling environment for science and regulatory communities. The framework provides tools used to develop and analyze emission control options, integrate related science components into a state-of-the-art quality modeling system, and apply graphical and analytical tools for facilitating model applications and evaluation.

3. **Comment:** Have areas similar to Northern Kentucky used similar methods to demonstrate attainment?

*Jo Hargis, Executive Director, Environmental Quality Commission*

**Response:** Yes. Many other areas submitted attainment demonstrations using similar methods for the previous 1-Hour Ozone standard. For this submittal for the 8-Hour standard, the attainment demonstrations were due June 15, 2007, therefore it is too soon to report areas whose submittals have been approved by U.S. EPA. Other states have used similar methods for these 8-Hour standard Attainment Demonstrations.

4. **Comment:** The Northern Kentucky Chamber of Commerce supports Kentucky’s proposed Attainment Demonstration.

*Steve Stevens, President, Northern Kentucky Chamber of Commerce*

**Response:** The Cabinet acknowledges this comment.

5. **Comment:** We discourage placing any additional technical, nonproductive burdens on the community, as all appropriate efforts have been taken to meet the Clean Air Act standards.

*Steve Stevens, President, Northern Kentucky Chamber of Commerce*

**Response:** The Cabinet acknowledges this comment.

6. **Comment:** Change the executive summary text to better explain Table 1.

*Kaye T. Prince, Chief, USEPA Air Planning Branch*

**Response:** The Cabinet agrees and has changed the data in Table 1 in the Executive Summary to better reflect the narrative.

7. **Comment:** Revise the narrative to develop the connection between the 2008 emissions inventory and the 2009 photochemical modeling data, and their relevance to the attainment demonstration.

*Kay T. Prince, Chief, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. The narrative has been revised to develop the connection between the 2008 emissions inventory and the 2009 photochemical modeling.

8. **Comment:** Revise the narrative to clearly indicate the inclusion and the role of Indiana data in the weight of evidence analysis and Kentucky's conclusion of attainment for the nonattainment area.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. The narrative has been revised to indicate the role of the Indiana data in the weight of evidence analysis and the conclusion of attainment for the nonattainment area.

9. **Comment:** Add page numbers to Appendix I and correlate those to the Table of Contents.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet agrees and the page numbers have been added to Appendix I and the Table of Contents updated.

10. **Comment:** Add a listing to the Table of Contents for Tables 3.1-1 and 3.1-2 from Appendix I.

*Kaye T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. Tables 3.1-1 and 3.1-2 were incorrectly labeled. The correct labeling is Table 2.1-1 and 2.1-2. They have been included in the table of contents.

11. **Comment:** Identify Section 5.1 as mentioned on page 4 in Chapter 2.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. This narrative was incorrect and the reference to Section 5.1 has been removed.

12. **Comment:** Section 2.1 from Appendix I references Tables 2.1-1 and 2.1-2, however the tables are labeled as Tables 3.1-1 and 3.1-2. at the end of Appendix I.  
*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. As stated in response #10 above, Tables 3.1-1 and 3.1-2 were incorrectly labeled. The labels have been corrected.

13. **Comment:** Add discussion to the narrative to address the large differences in NOx between the 2009 modeled NOx values and the 2008 calculated NOx emissions.  
*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. For the entire nonattainment area, the percentage difference for VOC is seven one-hundredths of one percent (0.07%). The percentage difference for NOx for the entire nonattainment area is approximately fifteen percent (14.68%). This much higher percentage difference is attributable to the onset of the CAIR reductions in order to meet the 2009 requirements as well as the earlier reductions due to the NOx SIP Call.

14. **Comment:** It is not clear that using a ratio of daily to annual 2009 emissions as a multiplier for developing 2008 daily emissions is the method to use. The 2009 emissions take into consideration a yearly NOx control program that does not exist in 2008.

**Response:** The Cabinet acknowledges this comment. Based on this comment, a thorough review was performed on the data available to the Cabinet from the modeling contractor. Several methodologies were studied, the one initially proposed, a second using a ratio of 2002 daily divided by 2002 annual, and a third methodology that simply divided the 2008 annual emissions by three hundred sixty-five (365) in order to come up with daily emissions. In addition, for each of the methodologies considered, a comparison was made using the mobile emissions provided by the modeling contractor, and mobile emissions provided by the Ohio-Kentucky-Indiana Regional Council of Governments (OKI), the planning organization in the Cincinnati area. This was done because it was noted that the mobile emissions were significantly different between the two sets of emissions. The ASIP mobile emission numbers were higher than the OKI mobile emission numbers. The input file was the same for both the ASIP and OKI mobile model runs, however ASIP mobile modeling was run using the SMOKE model as the emissions processor, whereas the OKI mobile modeling did not. In comparing the two sets of mobile emissions numbers to other mobile emission inventory projections developed for past SIP submittals for this area, it was decided that the OKI mobile numbers more closely represented the area's mobile emissions. After careful review it was decided that the emissions developed using the methodology of dividing the 2008 annual numbers by 365 and utilizing OKI mobile emission numbers would most accurately reflect the emissions in the area for the year 2008. This SIP submittal has been revised to use these numbers.

14. **Comment:** In Appendix I specify clearly whether the emissions listed represent ozone season emissions or annual tons per day.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. The emissions listed in the tables at the end of Appendix I are tons per typical summer day.

15. **Comment:** USEPA prefers the submittal use ozone season values as could be developed by the modeling contractor.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. When the Association for Southeastern Integrated Planning (ASIP) work was first envisioned, it was to address fine particulate (PM<sub>2.5</sub>) attainment demonstration efforts. The work was focused in the states with PM<sub>2.5</sub> nonattainment areas already participating in the Visibility Improvement State and Tribal Association of the Southeast (VISTAS) regional haze state implementation plan (SIP) process. The states with basic ozone areas determined that it would be more efficient to also perform ozone season modeling for 2008 as part of the ASIP effort. At the time, the most recent ASIP model run for 2009 showed each of the existing 8-hour nonattainment areas to be in attainment. The states therefore proposed to use the 2009 modeling results and a weight of evidence approach to develop the attainment demonstrations for these areas in lieu of conducting 2008 modeling for these areas. Using this approach, the contractor did not provide ozone season values for 2008. The Cabinet utilized the data provided as discussed above to come up with daily emissions for 2008.

16. **Comment:** Expand the narrative to clearly describe the weight of evidence analysis that 2008 attainment is achievable.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. The Weight of Evidence has been expanded to include a more thorough discussion of the development of the 2008 emissions inventory and it's comparison to the 2009 inventory, as well as the inclusion of more specific discussions regarding the modeling that was performed by a different agency (LADCO) for the Indiana and Ohio attainment demonstrations, which also demonstrates attainment for the area.

17. **Comment:** USEPA guidance for demonstrating attainment always recommends a weight of evidence analysis.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. A weight of evidence analysis is included in Appendix I.

18. **Comment:** Delete or revise the sentence “Using this approach all monitors fall below the 0.082 trigger for further additional weight of evidence determination.”  
*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment and the sentence has been revised.

19. **Comment:** USEPA modeling guidance recommends that a unmonitored attainment test be discussed.  
*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. An unmonitored attainment test discussion has been developed and included in the narrative.

20. **Comment:** Clarify motor vehicle budget discussion in subsection 7.2 where kilograms per day is used in paragraph 2.  
*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The cabinet concurs with this comment. The language discussing the motor vehicle emissions budgets in kilograms was in error. This language has been removed.

21. **Comment:** Clarify Table 7.2.1 to note explicitly what geographic area is represented by the mobile emissions budgets listed.  
*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. The title for this table identifies it as providing the mobile emissions for the Kentucky portion of the nonattainment area. In addition, the narrative below the table details that the budgets are for the Kentucky portion of the nonattainment area, and not for each individual county.

22. **Comment:** Provide specific planning assumptions and methodologies used to develop the mobile inventory and the motor vehicle budgets, and explain the relationship between these two components.  
*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. The planning assumptions and methodologies used to develop the mobile inventory and the motor vehicle emissions budgets as developed by OKI have been included in Appendix E.

23. **Comment:** Provide the rationale for using 12-kilometer grid scale resolution for the 8-hour ozone attainment modeling.  
*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet relied upon the U.S. EPA guidance document entitled *Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM 2.5, and Regional Haze, April 2007*. On page 158 of this



document is the statement: “We expect that modeling analyses for nonattainment areas will use grid cell sizes of 12 km or less.”

- 24. Comment:** Provide a conceptual description of the 8-hour ozone problem using the recommendations described in Chapter 11 of the modeling guidance.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. A conceptual description has been developed using the recommendations in Chapter 11 of the modeling guidance.

- 25. Comment:** USEPA recommends that the ASIP modeling protocol be submitted in Appendix C.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. The ASIP modeling protocol has been included in Appendix C.

- 26. Comment:** Provide explanation to describe why NO<sub>x</sub> on-road mobile source emissions barely decrease between 2002 and 2008 for Kentucky counties, while significant decreases are noted for the other nonattainment area counties.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. The vehicle emissions testing program in the Northern Kentucky area was removed in 2005. Although there was a slight increase in VOC and NO<sub>x</sub> emissions, Kentucky’s SIP revision offset these increases with additional controls on cold-cleaning degreasers and a requirement for the use of High Volume Low Pressure (HVLV) paint spray guns. This contributes to a slower reduction in VOC and NO<sub>x</sub> mobile emissions. In addition, we performed an extensive review of the ASIP mobile emissions data including input files as well as results. This was compared to the mobile emissions data including input files from the local planning agency, OKI. Since both ASIP and OKI used the same input files, the only difference is that ASIP used the SMOKE processor in their model runs. As stated in the response to comment #14 above, it was decided that the OKI data was more accurately representative of the mobile emissions in the area, and therefore has replaced the ASIP mobile emissions in the pertinent parts of the document.

- 27. Comment:** Provide explanation to describe why VOC on-road mobile source emissions noted in Tables 1 and 4 increase significantly after 2002 for the Kentucky counties.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** See response to comment 26 above.

- 28. Comment:** Include a reference for the documentation of the development of the 2008 inventory in both the SIP narrative and Appendix D.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment and has included references in the narrative and Appendix D for the 2008 inventory.

29. **Comment:** Add to the narrative the assumptions used to develop the on-road mobile source inventory for the attainment demonstration and the assumptions used to develop the motor vehicle emission budgets, and reconcile differences between the two mobile inventories.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. The assumptions used to develop the on-road mobile inventory are included in Appendix E of the attainment demonstration. As stated in the responses to comments #14 and #26 above, the mobile emissions and therefore the mobile budgets are developed using OKI modeling.

30. **Comment:** In Figure 1 of the Executive Summary, add a clarifying note indicating current attainment status, and the effective date, for any areas that have been since redesignated to attainment for 8-hour ozone.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. Clarification has been added to the figure.

31. **Comment:** The requirements of Subpart 2 (Section 182) do not apply to this area because it is a Subpart I area. This NO<sub>x</sub> exemption statement in the last paragraph of Section 5.3.1 is not accurate and should be removed from the SIP.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. The language regarding Subpart 2 and a NO<sub>x</sub> exemption has been removed from Section 5.3.1.

32. **Comment:** The 110(a)(2)(D)(i) guidance directs each state to make a SIP submission confirming that major sources in the state are currently subject to PSD and NNSR permitting programs that implement the 8-hour ozone standard. Include how Kentucky has met the requirements including NO<sub>x</sub> as a precursor for ozone and using PM<sub>10</sub> as a surrogate for PM<sub>2.5</sub>. Also include a statement that NNSR programs are currently in place for ozone and PM.

*Kay T. Prince, USEPA Air Planning Branch*

**Response:** The Cabinet acknowledges this comment. 401 KAR 51:017, Prevention of Significant Deterioration and 401 KAR 51:052, provides applicability for any regulated NSR pollutant, which is defined in 401 KAR 51:001 as a pollutant for which a national ambient air quality standard has been promulgated and any constituents or precursors for such pollutants identified by U.S. EPA.